

SEQUENCE LISTING

<110> Fikes, John D.  
Sette, Alessandro  
Sidney, John  
Southwood, Scott  
Celis, Esteban  
Keogh, Elissa A.  
Chesnut, Robert  
Epimmune Inc.

<120> HLA Class I A2 Tumor Associated Antigen  
Peptides and Vaccine Compositions

<130> 018623-015720US

<140> US Not yet assigned  
<141> Not yet assigned

<150> US 09/016, 361  
<151> 1998-01-30

<150> US 60/036, 696  
<151> 1998-01-31

<160> 57

<170> FastSEQ for Windows Version 3.0

<210> 1  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> CEA.233V10

<400> 1

Val Leu Tyr Gly Pro Asp Ala Pro Thr Val  
1 5 10

<210> 2  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> CEA.605V9

<400> 2

Tyr Leu Ser Gly Ala Asn Leu Asn Val  
1 5

<210> 3  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> CEA.687

<400> 3  
Ala Thr Val Gly Ile Met Ile Gly Val  
1 5

<210> 4  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> p53.25V11

<400> 4  
Leu Leu Pro Glu Asn Asn Val Leu Ser Pro Val  
1 5 10

<210> 5  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> p53.139L2

<400> 5  
Lys Leu Cys Pro Val Gln Leu Trp Val  
1 5

<210> 6  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> p53.139L2B3

<400> 6  
Lys Leu Asx Pro Val Gln Leu Trp Val  
1 5

<210> 7  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> p53.149L2

<400> 7  
Ser Leu Pro Pro Pro Gly Thr Arg Val  
1 5

<210> 8  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> p53.149M2

<400> 8  
Ser Met Pro Pro Pro Gly Thr Arg Val  
1 5

<210> 9  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.369L2V9

<400> 9  
Lys Leu Phe Gly Ser Leu Ala Phe Val  
1 5

<210> 10  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.369V2V9

<400> 10  
Lys Val Phe Gly Ser Leu Ala Phe Val  
1 5

<210> 11  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.773

<400> 11  
Val Met Ala Gly Val Gly Ser Pro Tyr Val  
1 5 10

<210> 12  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.5

<400> 12  
Ala Leu Cys Arg Trp Gly Leu Leu Leu  
1 5

<210> 13  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> MAGE3.271

<400> 13  
Phe Leu Trp Gly Pro Arg Ala Leu Val  
1 5

<210> 14  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.48

<400> 14  
His Leu Tyr Gln Gly Cys Gln Val Val  
1 5

<210> 15  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.435

<400> 15  
Ile Leu His Asn Gly Ala Tyr Ser Leu  
1 5

<210> 16  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> CEA.691

<400> 16  
Ile Met Ile Gly Val Leu Val Gly Val  
1 5

<210> 17  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.369

<400> 17  
Lys Ile Phe Gly Ser Leu Ala Phe Leu  
1 5

<210> 18  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> MAGE3.112

<400> 18  
Lys Val Ala Glu Leu Val His Phe Leu  
1 5

<210> 19  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> CEA.24V9

<400> 19  
Leu Leu Thr Phe Trp Asn Pro Pro Val  
1 5

<210> 20  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> MAGE3.160

<400> 20  
Leu Val Phe Gly Ile Glu Leu Met Glu Val  
1 5 10

<210> 21  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> MAGE3.159

<400> 21  
Gln Leu Val Phe Gly Ile Glu Leu Met Glu Val  
1 5 10

<210> 22  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.689

<400> 22  
Arg Leu Leu Gln Glu Thr Glu Leu Val  
1 5

<210> 23  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.665

<400> 23  
Val Val Leu Gly Val Val Phe Gly Ile  
1 5

<210> 24  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> MAGE2.157

<400> 24  
Tyr Leu Gln Leu Val Phe Gly Ile Glu Val  
1 5 10

<210> 25  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Her2/neu.952

<400> 25  
Tyr Met Ile Met Val Lys Cys Trp Met Ile  
1 5 10

<210> 26  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> tetanus toxoid positions 830-843,  
standard peptide 553.01

<400> 26  
Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu  
1 5 10

<210> 27  
<211> 21  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Plasmodium falciparum CS protein positions 378-398

<400> 27  
Asp Ile Glu Lys Lys Ile Ala Lys Met Glu Lys Ala Ser Ser Val Phe  
1 5 10 15  
Asn Val Val Asn Ser  
20

<210> 28  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Streptococcus 18kD protein position 116

<400> 28  
Gly Ala Val Asp Ser Ile Leu Gly Gly Val Ala Thr Tyr Gly Ala Ala  
1 5 10 15

<210> 29  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> pan-DR binding epitope peptide

<221> MOD\_RES  
<222> (3)...(3)  
<223> Xaa = cyclohexylalanine, Phe or Tyr

<221> MOD\_RES  
<222> (7)...(7)  
<223> Xaa = Trp, Tyr, His or Asn

<400> 29  
Ala Lys Xaa Val Ala Ala Xaa Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 30  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<221> MOD\_RES  
<222> (3)...(3)  
<223> Xaa = cyclohexylalanine

<400> 30  
Ala Lys Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 31  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<400> 31  
Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 32  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<400> 32  
Ala Lys Tyr Val Ala Ala Trp Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 33  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<400> 33  
Ala Lys Phe Val Ala Ala Tyr Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 34  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<221> MOD\_RES  
<222> (3)...(3)  
<223> Xaa = cyclohexylalanine

<400> 34  
Ala Lys Xaa Val Ala Ala Tyr Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 35  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<400> 35  
Ala Lys Tyr Val Ala Ala Tyr Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 36  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> alternative preferred PADRE peptide

<400> 36  
Ala Lys Phe Val Ala Ala His Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 37  
<211> 13  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> alternative preferred PADRE peptide  
  
<221> MOD\_RES  
<222> (3)...(3)  
<223> Xaa = cyclohexylalanine  
  
<400> 37  
Ala Lys Xaa Val Ala Ala His Thr Leu Lys Ala Ala Ala  
1 5 10  
  
<210> 38  
<211> 13  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> alternative preferred PADRE peptide  
  
<400> 38  
Ala Lys Tyr Val Ala Ala His Thr Leu Lys Ala Ala Ala  
1 5 10  
  
<210> 39  
<211> 13  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> alternative preferred PADRE peptide  
  
<400> 39  
Ala Lys Phe Val Ala Ala Asn Thr Leu Lys Ala Ala Ala  
1 5 10  
  
<210> 40  
<211> 13  
<212> PRT  
<213> Artificial Sequence  
  
<220>  
<223> alternative preferred PADRE peptide  
  
<221> MOD\_RES  
<222> (3)...(3)  
<223> Xaa = cyclohexylalanine  
  
<400> 40  
Ala Lys Xaa Val Ala Ala Asn Thr Leu Lys Ala Ala Ala  
1 5 10  
  
<210> 41  
<211> 13  
<212> PRT  
<213> Artificial Sequence

0956232000-65526000

<220>  
<223> alternative preferred PADRE peptide

<400> 41  
Ala Lys Tyr Val Ala Ala Asn Thr Leu Lys Ala Ala Ala  
1 5 10

<210> 42  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 944.02

<400> 42  
Tyr Leu Glu Pro Ala Ile Ala Lys Tyr  
1 5

<210> 43  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 941.01

<400> 43  
Phe Leu Pro Ser Asp Tyr Phe Pro Ser Val  
1 5 10

<210> 44  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 1072.34

<400> 44  
Tyr Val Ile Lys Val Ser Ala Arg Val  
1 5

<210> 45  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 941.12

<400> 45  
Lys Val Phe Pro Tyr Ala Leu Ile Asn Lys  
1 5 10

<210> 46  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 940.06

<400> 46  
Ala Val Asp Leu Tyr His Phe Leu Lys  
1 5

<210> 47  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 1083.02

<400> 47  
Ser Thr Leu Pro Glu Thr Tyr Val Val Arg Arg  
1 5 10

<210> 48  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 979.02

<400> 48  
Ala Tyr Ile Asp Asn Tyr Asn Lys Phe  
1 5

<210> 49  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 1075.23

<400> 49  
Ala Pro Arg Thr Leu Val Tyr Leu Leu  
1 5

<210> 50  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 1021.05

<400> 50  
Phe Pro Phe Lys Tyr Ala Ala Ala Phe  
1 5

<210> 51  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 515.01

<400> 51  
Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr  
1 5 10

<210> 52  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 829.02

<400> 52  
Tyr Lys Thr Ile Ala Phe Asp Glu Glu Ala Arg Arg  
1 5 10

<210> 53  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 717.01

<400> 53  
Tyr Ala Arg Phe Gln Ser Gln Thr Thr Leu Lys Gln Lys Thr  
1 5 10

<210> 54  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 1200.05

<400> 54  
Glu Ala Leu Ile His Gln Leu Lys Ile Asn Pro Tyr Val Leu Ser  
1 5 10 15

<210> 55  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> standard peptide 650.22

<400> 55  
Gln Tyr Ile Lys Ala Asn Ala Lys Phe Ile Gly Ile Thr Glu  
1 5 10

<210> 56  
<211> 24  
<212> PRT  
<213> Artificial Sequence

<220>

<223> standard peptide 507.02

<400> 56

Gly Arg Thr Gln Asp Glu Asn Pro Val Val His Phe Phe Lys Asn Ile  
1 5 10 15  
Val Thr Pro Arg Thr Pro Pro Pro  
20

<210> 57

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> standard peptide 511

<400> 57

Asn Gly Gln Ile Gly Asn Asp Pro Asn Arg Asp Ile Leu  
1 5 10